Data Contribution Best Practices Guide

Step 1. Decide What Data to Collect.

If you are starting from scratch, it may be best to use the Building Energy Data Exchange Specification (BEDES) as a standard for determining relevant building performance data. The documentation provides field names and type lists for classifying and organizing building data. Alternatively, or in combination, you may want to use an established online tool, like EPA's Portfolio Manager (http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager).

For BPD inclusion, there are simple, but mandatory, data requirements:

1. Gross floor area is defined as: Total floor area of all floors of a building calculated with the external dimensions of the enclosing fixed walls of the building including structures, partitions, corridors, stairs, and conditioned below-grade spaces. Note: All parking areas (enclosed and non-enclosed) should be excluded; atrium should only include the base floor area that it occupies.
2. Full year of data for a facility
3. Location: City and State, or Zip Code
4. Facility type (office, retail, home, etc)

Step 2. Collect the Data

Below are some Do's and Don'ts for collecting data. While the Don'ts come from personal experience of working with difficult data that was eventually cleansed and processed, avoiding them would have resulted in much less wasted time and frustration. Even while using a third-party data-reporting tool, please strive to follow these Do's and Don'ts.

Do	Don't
Provide real measured data.	Estimate or use defaults for values/types.
Provide data according to data type (Integer, string, Boolean, type list)	Have free-form text entries, model numbers, etc.
Provide a unique Facility ID for each record.	Provide multi-year characteristic data (i.e. If a characteristic changed over the time for which there is energy data, either provide only the average value/type, or just the latest energy data associated with that value/type) **Unless you know what date the characteristic changed**
Combine records into files with Facility IDs going down the first column and field headers going across the first row. If providing multiple files, must have some unique identifier for each facility in each file.	Have one file per record.
Provide complete energy data for the associated facility. Think of the facility as a controlled volume, where all energy is consumed completely and only in that facility (a facility can be a campus, a free-standing building, or an area within or part of a building)	Provide records from central plants unless the whole facility includes the central plant and all the buildings it serves. In other words, no energy data should ever be negative. If data is incomplete, don't send it.
Provide energy readings in consistent intervals and all fuels for the same time period. Fill-in "0" where appropriate (e.g. diesel is only used in winter months, still fill-in summer months with a "0" value).	Include energy data with missing intervals or inconsistent intervals (sometimes a month, sometimes 3 months, sometimes a few days, it should always be the same interval).
Compile information as much as possible.	Provide conflicting information in separate files (e.g. square footage could differ between the tax assessor's records and the self-reported value). Either provide a rule for determining the most trust-worthy value, or cleanse it beforehand.
If field names don't match BEDES, provide field descriptions and associated units.	Provide vague field names without field descriptions.

Step 3. Deliver the Data
Modes of sharing:
1. Email or Google Drive: lndunn@lbl.gov
    - Acceptable file types:
        - Comma-Separated Values (.csv)
        - Excel (.xls, .xlsx)
        - Access (.accdb)
2. Portfolio Manager: Share with username: lndunn
    - If sharing through Portfolio Manager, additional data is welcomed if there is a way to tie the two together, usually by address.
    - If there is some information in Portfolio Manager that you do not wish to share, LBNL can provide an exporting template for the data we are interested in, that you can then strip of private data before sending it via options 1 or 3. You will have to email me with your portfolio manager username so I can share them the exporting template.
3. Additional modes:
    - Dropbox: lndunn@lbl.gov
    - FTP site